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REMARKS

Applicant appreciates the thorough examination of the present application as evidenced by the Office Action. Applicant submits that the present rejections should be withdrawn for the reasons discussed below.

The Objection to Claim 21

Applicant appreciates the Examiner's noting of the typographical error in the dependency of Claim 21. Claim 21 has been amended above to depend from Claim 20. Accordingly, Applicant requests withdrawal of the objection.

The Section 102 Rejections

Claims 1, 2, 16-21, 35 and 36 stand rejected under 35 U.S.C. § 102(b) as being anticipated by United States Patent No. 5,390,188 to Dawson ("Dawson"). Under 35 U.S.C. § 102, "a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." M.P.E.P. § 2131 (quoting *Verdegaal Bros. v. Union Oil Co.*, 814 F.2d 628, 631, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987)). "The fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic. To establish inherency, the extrinsic evidence 'must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.'" M.P.E.P. § 2112 (citations omitted) (emphasis added). A finding of anticipation further requires that there must be no difference between the claimed invention and the disclosure of the cited reference as viewed by one of ordinary skill in the art. See *Scripps Clinic & Research Foundation v. Genentech Inc.*, 18 U.S.P.Q.2d 1001 (Fed. Cir. 1991). Thus, anticipation requires that a single prior art reference disclose each and every element of the anticipated claim.

In rejecting Claim 1, the Office Action asserts that Dawson at column 10, lines 1-13 and column 14, lines 58-62 discloses monitoring the data records. However, the cited

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portions merely discuss monitoring data records into and out of a port on a ring network to generate a generic loss metric and/or a source address loss metric. The two metrics differ in that the generic is independent of the address of the source of the packet while the source address metric is based only on packets from a particular source. Thus, there is no description or suggestion of monitoring "data records from the source directed to the destination passing between ones of the connecting nodes" as recited in Claim 1 or the corresponding recitations of the other independent claims.

There is also no impetus to modify Dawson to include such monitoring as Dawson is specifically directed to a "ring based structure" wherein each "node is called a repeater because it repeats a message through the ring whether or not the particular message is destined for that node so that all messages at some time will traverse over the entire node in order to reach the intended target or destination node." Dawson, Col. 7, lines 59-64. In other words, all messages in Dawson follow the same pathway. As a result, there is no reason to consider both source and destination addresses in Dawson as Dawson does not even consider the environment of the present invention where a plurality of distinct pathways may exist between a source and a destination address and a node may handle independent data streams between different source and address nodes. Accordingly, the Section 102 rejections should be withdrawn for at least these reasons.

The Office Action also asserts that Dawson in Figure 1 discloses determining a topology of the network and that Dawson at column 10, lines 1-13 and column 14, lines 58-62 discloses identifying a node as a point of loss based on monitored data records and the topology. As discussed previously, Dawson is directed to a ring network structure and measures metrics for individual ports without reference to or reliance on data from other ports of the ring structure. There is no discussion in Dawson of basing the described networks on the topology of the ring or otherwise identifying a port as a point of loss based on the topology of the ring. Thus, Dawson does not disclose "identifying at least one of the connecting nodes as the point of loss based on ... the determined topology" as recited in Claim 1 or the corresponding recitations of the other independent claims. Accordingly, the Section 102 rejections should also be withdrawn for at least these additional reasons.

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In rejecting Claim 16, the Office Action asserts that, in Dawson, "the topology is known to all nodes." Office Action, p. 3. Applicant notes that the Office Action provides no citation in support of this statement. Furthermore, given the ring structure of Dawson, where all ports simply act as repeaters and capture messages addressed to the respective node, Applicant submits there would be no need for a port to have knowledge of a topology as only a single input and output are utilized per port. Similarly, there is no basis to assert that a memory is used for storing such a topology at any node. Applicant further notes that the cited portions of Dawson relied on at page 4 of the Office Action in rejecting Claim 16 also fail to disclose the corresponding recitations of Claim 16. Applicant does note that Dawson, in other sections, discusses an NMS that may receive the metrics from the ports and display the metric information. Dawson, Col. 11, lines 28-61. However, the metrics so communicated are not "a number of data records from the source directed to the destination passing between ones of the connecting nodes" as recited in Claim 16. Instead, they are loss statistics determined at the port independent of the topology of the ring and based solely on input and output for the port determining the metric. Thus, Dawson also does not disclose the comparison circuit as recited in Claim 16 as there is no reference to a topology in identifying a point of loss for the ring structure of Dawson. Accordingly, the rejection of independent Claim 16 and the claims that depend therefrom should also be withdrawn for at least these additional reasons.

The Section 103 Rejections

Claims 3-8, 13-15, 22-27, 32-34, 37-42 and 47-49 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Dawson in view of United States Patent No. 6,006,016 to Faigon et al. ("Faigon"). Claims 9-12, 28-31 and 43-46 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Dawson and Faigon in view of United States Patent No. 6,363,056 to Beigi et al. ("Beigi"). Applicant respectfully submits that the cited references do not disclose or suggest various of the recitations of the claims and further submit that the references cannot be combined in the manner relied on for the rejections.

To establish a prima facie case of obviousness, the prior art reference or references when combined must not only teach or suggest *all* the recitations of the claim, there must also

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be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. M.P.E.P. § 2143. The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. M.P.E.P. § 2143.01, citing *In re Mills*, 916 F.2d 680, 16 U.S.P.Q.2d 1430 (Fed. Cir. 1990). To support combining references, evidence of a suggestion, teaching, or motivation to combine must be clear and particular, and this requirement for clear and particular evidence is not met by broad and conclusory statements about the teachings of references. *In re Dembiczak*, 50 U.S.P.Q.2d 1614, 1617 (Fed. Cir. 1999). The Court of Appeals for the Federal Circuit has further stated that, to support combining or modifying references, there must be particular evidence from the prior art as to the reason the skilled artisan, with no knowledge of the claimed invention, would have selected these components for combination in the manner claimed. *In re Kotzab*, 55 U.S.P.Q.2d 1313, 1317 (Fed. Cir. 2000).

As an initial matter, each of the dependent claims is patentable at least based on the patentability of the independent claim from which it depends as discussed above. Various of the dependent claims are also separately patentable. For example, the Office Action asserts that Dawson discloses various recitations related to a first hop one and at least one next hop one of the network appliances as recited in Claim 3. Applicant submits that Dawson does not disclose any determination of loss based on counts from a first hop one and at least one next hop one of the network appliances as Dawson is directed to a ring structure as discussed above. Thus, in particular, the comparing and identifying operations as recited in Claim 3 are simply not discussed and are, essentially, irrelevant to the ring structure of Dawson. The cited portions of Dawson at column 10, lines 1-13 and 26-32 appear to all relate solely to calculations of metrics at a port based on input and output from the port independent of the traffic flow at any other port in the ring. Accordingly, the rejections of Claim 3 and corresponding Claims 22 and 37, and the claims that depend therefrom, should also be withdrawn for at least these additional reasons.

In addition, the rejections of Claims 3, 22 and 37 rely on Faigon as disclosing "identifying a fault if the number of data records from the source directed to the destination

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obtained by one of the at least one first hop one of the network appliances differs by a threshold amount from the number ... obtained by ones of the at least one next hop one of the network appliances." Office Action, p. 7. Applicant can find no such teaching in the cited abstract of Figure 15 or any other portion of Faigon. Faigon appears to simply relate to apply fault rules to evaluate and make decisions about a network based on SNMP traps. Faigon, Col. 11, lines 31-44. While these SNMP traps may identify the device sending the trap object and/or specific ports of the device or the like associated with the trap, Faigon, Col. 11, lines 46-55, such a discussion clearly does not suggest, nonetheless disclose, what is asserted to be taught in the Office Action. Accordingly, the rejections of Claims 3, 22 and 37, and the claims that depend therefrom, should also be withdrawn for at least these additional reasons. Applicant further submits that, given the actual descriptions in Faigon and Dawson as discussed above, there is clearly no motivation to combine these references to allow "a level of resolution to be set in determining the point of loss" as recited at page 7 of the Office Action.

Claim 5 is rejected for the same reasons as Claim 3 and further in reliance on Dawson for the recitations of Claim 5 (and corresponding Claims 24 and 39) other than the threshold. Applicant submits that the ring structure and metrics of Dawson do not disclose the recitations of Claim 5 related to tracking of data records from a particular source to a particular destination from the source to the destination through an architecture that may include alternate pathways. An exemplary architecture is illustrated in Figure 5 of the present application and an example of a source to destination analysis is include in the specification at pages 21 to 27. In contrast, no such node to node consideration is applicable to Dawson, where all messages must pass entirely around the ring and there is no discussion nor need to evaluate particular paths based on the source and destination and the port metrics are not dependent on the measurements at any other port. Accordingly, the rejections of Claims 5, 24, 39, and the claims that depend therefrom, should also be withdrawn for at least these additional reasons. Claims 6, 25 and 40 similarly contain additional details of the path analysis for embodiments of the present invention and are also separately patentable based on the recitations therein.

Claim 7 recites "adjusting obtained numbers of data records ... to compensate for in

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transit introduced changes to data records." Examples in the present specification include adjusting for encryption introduced in transit. Specification, p. 19, lines 10-13. The Office Action asserts that these recitations are taught by the statement in Dawson that the "metric may be further specified to include or exclude counts for certain frame classes, such as MAC, void, or implementor frames and other frame classes which are similarly defined in the FDDI standard. Dawson, Col. 15, lines 27-31. While this clearly describes "adjusting" the metric, it only describes doing so by excluding defined frame classes. As such, Dawson does not disclose adjusting to compensate for "in transit introduced changes to data records" as recited in Claim 7. Accordingly, the rejections of Claim 7 and corresponding Claims 26 and 41, and the claims that depend therefrom, should be withdrawn for at least these additional reasons.

Similarly, Claim 8 (and corresponding Claims 27 and 42) expressly recites that the in transit introduced changes are "encryption related changes." As noted above, and acknowledged in the Office Action at page 12, there is no such disclosure or suggestion in Dawson. The Office Action asserts that encryption is well known in the art. While Applicant does not dispute that encryption is known in the art, that is not what is recited in Claims 8, 27 and 42. The Office Action asserts that it would be obvious to modify Dawson to arrive at the present invention as recited in these claims based on nothing more than a conclusory allegation that such compensation in Dawson would have avoided mis-labeling a point of loss and "using administrator time." As an initial matter, the input and output measurements used to generate a metric in Dawson are made at a single port and are not subject to change "in transit" on the network. The Office Action fails to even allege, nonetheless cite to any reference, to conclude that implementing encryption would even change the packet count as discussed in Dawson. In fact, one of skill in the art, even if motivated to provide encryption, may provide such encryption by increasing packet size or decreasing the amount of data in a packet. As such, encryption would not change the ratio of incoming and outgoing packets at a particular port of Dawson even if encryption were used as Dawson describes a ring structure based on packets, each of which must pass through the entire ring from a source and back to the source for removal of the packet. Dawson, Col. 7, lines 65-67. Accordingly, the rejections of Claims 8, 27 and 42 should also be withdrawn for at least these reasons as the

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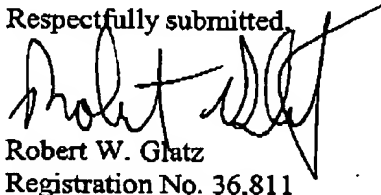
rejections clearly fail to meet the requirements for a Section 103 rejection.

Claim 9 is rejected based on Dawson and Faigon in combination with Beigi as disclosing "means for defining the determined period of time" between hops based on a delay between hops. Beigi does discuss the use of a time stamp in a probe packet to determine network delay, both one way and round trip. Beigi, Abstract. However, the Office Action asserts that one of skill in the art would determine a standard delay for packets on the network to allow "for a timer that will determine when a packet is lost based on the general network performance." Office Action, p. 14. As an initial matter, these comments bear little relation to the actual recitations of Claim 9 or corresponding Claims 28 and 43. Furthermore, as discussed extensively above, the incoming and outgoing packets used to determine the metrics in Dawson are both at the same port. Accordingly, Applicant submits that the delay compensation as recited in Claim 9, and the network delay probes of Beigi, are irrelevant to Dawson and there is clearly no basis to combine these references, nonetheless to combine them to arrive at the present invention as recited in Claims 9, 28 and 43. Accordingly, the rejections of Claims 9, 28 and 43, and the claims that depend therefrom, should also be withdrawn for at least these additional reasons.

Conclusion

Applicant respectfully submits that, for the reasons discussed above, the references cited in the present rejections do not disclose or suggest the present invention as claimed. Accordingly, Applicant respectfully requests allowance of all the pending claims and passing this application to issue.

Respectfully submitted,



Robert W. Glatz
Registration No. 36,811

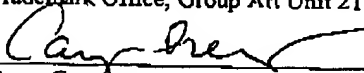
Myers Bigel Sibley & Sajovec
P.O. Box 37428
Raleigh, NC 27627
(919) 854-1400 phone
(919) 854-1401 fax

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I hereby certify that this correspondence is being sent by facsimile transmission to the United States Patent and Trademark Office, Group Art Unit 2153 at (703) 746-7239 on August 14, 2003.



Carey Gregory

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